

## **SECTION 119 – PIPELINE INSULATION**

### **1. SCOPE**

Work under this section consists of furnishing all labor, materials, equipment and accessories and performing all operations necessary for the installation of insulation with a continuous vapor barrier on all ductile iron piping at the Magnolia Road Bridge at the Smoky Hill River, in accordance with the Drawings and as specified herein.

The insulation on the ductile iron piping shall be continuous from 3 feet below grade, vertically up and horizontally on underside of bridge and vertically down to 3 feet below grade. Insulation shall be 3-inch and covered with a continuous aluminum jacket above grade and PVC jacket below grade.

### **2. MATERIALS**

Insulation shall be Manville Micro-Lok with AP-T jacket, or equal. Metal jacketing shall be 0.016-inch aluminum with continuous moisture barrier and smooth finish. Insulation shall have composite (insulation, facing and adhesive used to adhere the facing or jacket to the insulation) fire and smoke hazard ratings not to exceed flame spread 25 and smoke developed 50, as tested by procedure ASTM E 84, NFPA 255 and UL 723. Accessories, such as adhesives, mastics, cements, tapes and fiberglass inserts for the fittings shall have the same component rating as listed above. All products, or their shipping cartons, shall bear a label indicating that flame and smoke ratings do not exceed the above requirements. Treatment to facings shall be permanently fire and smoke resistant. Chemicals used for treatment shall be unaffected by water and humidity. Certification in writing shall be provided, prior to installation, that all products meet the above criteria.

### **3. INSTALLATION**

Insulation, jacket and accessories shall be installed in a workmanlike manner by skilled workmen regularly engaged in this type of work. Insulation shall be applied on a clean, dry surface and have a continuous, unbroken vapor seal on all surface and have a continuous, unbroken vapor seal on all surfaces. Inserts shall be installed at locations where supports are on the outside of the insulation. Inserts between pipe and pipe supports shall consist of rigid pipe insulation of equal thickness of adjoining insulation and be provided with vapor barrier. Insulation insert lengths shall not be less than 18 inches.

Install 24 gauge metal shields between supports and pipe insulation. Form shields to fit insulation and extend up to the centerline of pipe and the length specified for insulation inserts. Insulation and accessories shall be installed in accordance with manufacturers' recommendations.